40.350.030 Street and Road Standards

A. Overview.

1. Purpose. It is the purpose of this section to establish minimum standards for public and private transportation facilities for vehicles, public transit, pedestrians, and bicycles, hereinafter constructed or improved as a condition of county approval of a development, or a transportation project constructed by the county. These standards are intended to preserve the community's quality of life and to minimize total costs over the life of the transportation facility.
2. Applicability. This section applies to any subdivision, short plat, site plan application, or conditional use permit; provided, that for the purposes of Sections 40.350.030(B)(4) and (B)(8), it shall also apply to applications for building permit or other applications for access to a public road, or to projects within the public right-of-way.
3. Relationship to Comprehensive Plan.
   a. Clark County is required by RCW 36.70A.040(3) to ensure that any development regulations adopted subsequent to the comprehensive plan "...are consistent with and implement the comprehensive plan..."
   b. This section is consistent with and implements the goals and policies listed in the comprehensive plan as hereafter amended by subarea plans such as West Felida circulation plan and the Salmon Creek/Fairgrounds regional road plan. Particular attention has been paid to Chapter 5, Transportation Element.
   c. Interpretations of this section shall be consistent with the effective Arterial Atlas. The Arterial Atlas identifies all arterials and collectors and specifies the design of these facilities in general terms.
   d. This section implements the trails and bikeways system plan through the Arterial Atlas. The atlas requires pedestrian and/or bicycle facilities to be included as part of certain arterial and collector designs where the trails and bikeways system plan indicates such facilities are to be located. This section requires the inclusion of urban trails and bikeways in any frontage improvements constructed in accordance with the Arterial Atlas.
4. Functional Classifications – Purpose. The purpose of a functional classification system for county roads is to define varying levels and types of transportation infrastructure and to provide for the safe and efficient movement of people and goods, while preserving residential areas and maintaining the economic vitality of commercial and industrial areas. The system classifies transportation facilities as either urban or rural roads. Within urban roads, they are further divided into arterials, collectors, and access roads; within rural roads, they are divided into collectors and access roads.

   Existing and proposed arterials and collectors are shown on the current Arterial Atlas as hereafter amended. The county's functional classification system for arterials is intended to be in compliance with the federal classification system.
5. Functional Classifications – Urban Roads. Urban roads are classified as outlined below:
   a. Arterials.
      (1) Parkway Arterial. "Parkway arterial" (the principal arterial parkway referred to in the Arterial Atlas) is the highest classification within the county's functional classification system. The purpose of this county road is to carry high volumes of traffic through the urban area and between major activity centers of regional impact. This class of road is of great importance in the regional transportation system as it carries a high proportion of the total urban area travel. Access is normally limited to intersections with other arterials. Direct land access is prohibited.

(2) Principal Arterial. “Principal arterial” is the basic element of the county’s road system. All other functional classifications supplement the principal arterial network. Access is generally limited to intersections with other arterials and collectors. Direct land access is minimal and controlled, but less restrictive than access from parkway arterial.

(3) Minor Arterial. “Minor arterial” collects and distributes traffic from principal arterials to streets of lower classifications and may allow for traffic to directly access destinations. They provide for movement within subareas of the county, whose boundaries are largely defined by principal arterial roadways. They serve through traffic and provide direct access for commercial, industrial, office and multifamily development but, generally, not for single-family residential properties.

b. Collectors – Urban Collector. “Urban collector” provides for land access and traffic circulation within and between residential neighborhoods, and commercial and industrial areas. Direct access to adjacent land uses, however, is still subordinate to traffic movement. Access to abutting properties is controlled through the use of raised channelization, driveway spacing and pavement markings. Typically, collectors are not continuous for any great length, nor do they form a connected network by themselves. Parking is allowed only on two-lane urban collectors (see the Standard Details Manual) where bike lanes are not specified.

c. Access Roads.

(1) Neighborhood Circulator. “Neighborhood circulator” serves to distribute traffic from collectors and provides direct access for abutting properties. Through trips are discouraged and parking is allowed. In general, these streets connect to collectors.

(2) Local Residential Access. “Local residential access” streets provide direct access to adjoining properties within a neighborhood. Through trips are discouraged and parking is allowed. In general, these streets do not directly connect to arterials or collectors.

(3) Residential Loop. “Residential loop” streets are a special category of local residential access streets with outlets that begin and end on the same street or on different streets but orientated in such a way that they would only be used for access to residences on that loop. They are less than one thousand two hundred (1,200) feet in length. Through trips are discouraged and parking is allowed.

(4) Cul-de-Sac. “Cul-de-sac” streets provide an outlet at one (1) end only and are constructed with a turnaround at the other. They are a maximum of six hundred (600) feet in length. Parking is allowed.

(5) Short Cul-de-Sac. “Short cul-de-sac” streets have a two (2) foot narrower roadway than cul-de-sacs. They are a maximum one hundred fifty (150) feet in length and serve no more than eighteen (18) dwelling units. Parking is allowed.

(6) Alley. “Alley” streets are secondary accesses to the back side of lots. This allows streets at the front of properties not to be encumbered with driveways and is an alternative to frontage access. Parking is not allowed.

(7) Infill A Roadway. “Infill A roadway” is a twenty (20) foot public or private roadway within a minimum twenty-five (25) foot easement used to serve up to eight (8) lots in an infill development. Parking is not allowed.

(8) Infill B Private Roadway. “Infill B private roadway” is a twelve (12) foot roadway within a minimum twenty (20) foot private easement for a maximum of

one hundred fifty (150) feet in length used to serve a maximum four (4) lots. Parking is not allowed.

(9) Urban Industrial. “Urban industrial” streets serve to distribute traffic from arterials and provide direct access to abutting industrial properties. Primary industrial streets have three (3) or five (5) lanes. Secondary industrial streets have two (2) lanes. Through trips are discouraged and parking is allowed.

(10) Fire Apparatus Access Road. Refer to Chapter 15.12.

6. Functional Classifications – Rural Roads. Following are the county rural road classifications as designated in the Arterial Atlas, as amended:
   a. Collectors.
      (1) Rural Major Collector. “Rural major collector” roads are rural extensions of urban principal arterials and some urban minor arterials. Their primary purpose is to link rural centers with larger towns nearby, and to state arterial routes. The provision of land access remains subordinate to providing for traffic movement. Parking is not allowed.
      (2) Rural Minor Collector. “Rural minor collector” roads serve the remaining rural area. They connect local traffic to rural major collectors and state arterial routes and may be rural extensions of urban minor arterials or urban collectors. They are spaced so as to be accessible to all developed areas within the county. The provision of land access is given the same priority as the provision of traffic movement. Parking is not allowed.
   b. Access Roads.
      (1) Local Access. “Local access” roads provide access from parcels to the rural collector system. Parking is not allowed unless an extra eight (8) feet wide paved area is provided.
      (2) Loop. “Loop” roads are local access roads with outlets that begin and end on the same road. Parking is not allowed unless an extra eight (8) feet wide paved area is provided.
      (3) Cul-de-Sac. “Cul-de-sac” roads are local access roads with an outlet at one (1) end only and are constructed with a turnaround at the other end. Parking is not allowed unless an extra eight (8) feet wide paved area is provided.
      (4) Fire Apparatus Access Road. Refer to Chapter 15.12.
7. Scenic Routes.
   a. Scenic routes are roadways with unique scenic or historical features, officially designated by the board. Scenic routes seek to enhance, preserve and facilitate the enjoyment of those scenic or historical features unique to each route.
   b. Scenic route design may allow reduced design speed and modified roadway and right-of-way widths to preserve naturally occurring scenic beauty unique to the location of the route. When possible, existing alignment and roadway sections shall be used. Special features, such as vehicle turnouts for vista areas or bicycle/pedestrian facilities, may be provided. Urban or rural collector standards shall be used for right-of-way and roadway sections. The Public Works director may modify the standards to accommodate unique scenic or historic design considerations.
   c. A traffic analysis to determine the impacts on arterials, collectors, and access roads shall be completed prior to designating a facility a scenic route.
   d. Scenic routes are designated as such in the Arterial Atlas, as amended. The routes officially designated as scenic within Clark County are the Evergreen Highway and Lucia Falls Road.

8. Urban Reserve, Urban Holding Areas and Rural Centers. The following are special applications of the functional classifications. Chapter 5 of the comprehensive plan lists additional transportation improvements required in specific geographic areas.
   a. New developments permitted outright within the urban holding and urban reserve areas of the county shall meet rural road standards, except that the right-of-way for rural local access roads shall be a minimum of fifty-four (54) feet to allow a neighborhood circulator street.
   b. Conditional uses in the urban holding and urban reserve areas that are urban in character shall meet urban road standards for frontage improvements and provide additional right-of-way as needed to meet urban road spacing requirements to ensure that the area can transition efficiently to anticipated urban uses.
   c. Where urban frontage improvements are required and the road to be improved has a rural classification, Table 40.350.030-1 shall be used to convert rural classifications to urban.
   d. New developments within rural centers shall meet rural road standards; provided, that all public roads, and all nonresidential private roads, shall be paved and constructed with detached sidewalks.

Table 40.350.030-1. Rural/Urban Classification Conversion

Rural Classification	Converts to	Urban Classification
Rural Major Collector (R-2)	♦ ∅	Urban Minor Arterial: two lanes, center turn lane and bike lanes (M-2cb)
Rural Minor Collector (RM-2)	♦ ∅	Urban Collector Arterial: two lanes (C-2)
Rural Local Access	♦ ∅	Urban Neighborhood Circulator
Rural Loop	♦ ∅	Urban Local Residential Access
Rural Cul-de-Sac[1]	♦ ∅	Urban Cul-de-Sac

[1] *No maximum length*

B. Standards for Development Review.
   1. Transportation Impact Study. The requirements for a transportation impact study are stated in Section 40.350.020(D).
   2. Circulation Plan.
      a. Purpose and Applicability. The purpose of this section is to ensure adequate cross-circulation in a manner which allows subsequent developments to meet these standards, and to provide a mechanism for integrating various streets into an efficient and safe transportation network.

      Developments that are required to conduct a transportation impact study or construct frontage improvements shall meet the requirements of this section.
      b. Information Requirements for a Circulation Plan. Applicants shall submit a circulation plan which includes the subject site and all adjacent parcels. Proposed streets must be shown to the point of connection with the existing street system within six hundred (600) feet. The circulation plan shall demonstrate feasibility with development of adjacent properties, or may revise the off-site portion of prior approved plans. Circulation plans shall also be consistent with the Arterial Atlas, as amended. A circulation plan shall be submitted at application. Draft circulation plans may be submitted at pre-application.

(1) Information Requirements for Developments in Urban Area. Urban circulation plans shall be schematic in nature and to an engineering scale (e.g., 1″ = 100′, 1″ = 200′, 1″ = 400′). The plan should include sufficient off-site and on-site conditions to evaluate it against the review criteria. It shall include:

(a) Proposed project boundary;

(b) Existing and proposed streets, transit routes and facilities, and other pedestrian/bicycle destinations within six hundred (600) feet of the project boundary;

(c) Site access points for vehicles, pedestrians, bicycles, and transit; and

(d) Sensitive lands (wetlands, shoreline, geologic hazard, floodplain, etc.), if they are contained in the county's information package.

The circulation plan should be prepared on eight and one-half (8 1/2) inch by eleven (11) inch (8 1/2″ x 11″) or eleven (11) inch by seventeen (17) inch (11″ x 17″) or twenty-four (24) inch by thirty-six (36) inch (24″ x 36″) format, and can be superimposed on the "arterials, C-Tran routes, parks and trails" and "elevation contours" page provided with the developer's GIS packet. Additional explanation or an additional legend may be required to adequately show proposed on-site facilities.

(2) Information Requirements for Developments in Rural Area. Rural circulation plans shall be schematic in nature and based on the appropriate quarter-section map. The plan should include sufficient on-site and off-site conditions to evaluate it against the review criteria. Rural circulation plans shall include:

(a) Proposed project boundary;

(b) How the project site connects to the existing street system;

(c) Any arterials identified in the arterials atlas, as amended, within eight hundred (800) feet of the site.

c. Review Criteria for an Urban Circulation Plan.

(1) Cross-Circulation. Cross-circulation shall be provided in a manner, where possible, that will allow subsequent developments to meet these standards.

(a) Block Length. Block lengths shall be between one hundred (100) to eight hundred (800) feet; provided, that where a block is partially defined by an arterial or industrial road the block lengths along the arterial shall be no less than the minimum full access intersection spacing specified in Table 40.350.030-2 through Table 40.350.030-6.

(b) Block Perimeter. The block perimeter shall not exceed three thousand two hundred (3,200) feet unless accessway(s) for pedestrian or bicycle circulation are provided or where topographic or other physical constraints preclude achieving this standard.

(2) Access Street System. The access street system shall:

(a) Provide convenient parcel access to and from adjacent arterials and/or collectors;

(b) Be designed to discourage external traffic from short-cutting;

(c) Be designed to discourage vehicular speeds in excess of legal speed limits;

(d) Be designed for convenient circulation of internal traffic without reliance on the arterial systems;

(e) Support direct travel by pedestrians, bicyclists, and transit users; and

(f) Discourage unnecessary streets and hard surfaces.

d. Review Criteria for Rural Circulation Plan. Rural circulation plan shall show how the development connects to arterials, within eight hundred (800) feet of the site, that are defined in the Arterial Atlas.

3. Transportation Design Criteria. The design criteria set out in Table 40.350.030-2 through 40.350.030-6 are adopted as a portion of the Clark County standard specifications. Such criteria are applicable to roads located within and adjacent to a development. These criteria are intended for normal conditions. The responsible official may require higher standards for unusual site conditions.

Table 40.350.030-2. Design Criteria For Urban Arterials and Urban Collectors

	Arterials			Collector
Design Criteria	**Parkway Arterial Dwgs 1 – 1a**	**Principal Arterial Dwgs 2 – 5a**	**Minor Arterial Dwgs 6 – 10**	**Urban Collector Dwgs 11 – 12**
Maximum Spacing		2 – 5 miles	< 2 miles	< 2 miles
Minimum R/W (ft.) 2 lane	N/A	N/A	N/A	60
3 lanes w/bike	N/A	80	80	70
4 lane	N/A	N/A	80	N/A
4 lane w/CLT	90	90	90	N/A
4 lane w/bike	N/A	N/A	90	N/A
4 lane w/CLT and bike	100	100	100	N/A
6 lane w/CLT	110	110	N/A	N/A
6 lane w/CLT and bike	120	120	N/A	N/A
Lane Width (ft.) 2 lane	N/A	N/A	N/A	11
3 lanes w/bike	N/A	12	12	12
4 lane	N/A	N/A	12 – 13	N/A
4 lane w/CLT	11 – 12	11 – 12	11 – 12	N/A
4 lane w/bike	N/A	N/A	12	N/A
4 lane w/CLT and bike	11 – 12	11 – 12	11 – 12	N/A
6 lane	11 – 12	11 – 12	N/A	N/A
Median Width (ft.)[1] 3 lanes w/bike	N/A	12	12	12
4 lane	16	14	14	N/A
6 lane	14	14	N/A	N/A
Shoulder/Parking (ft.)[2] 2 lane	8	N/A	N/A	N/A
Roadway Width (ft.) 2 lane	N/A	N/A	44	38
	N/A	46	46	46
3 lanes w/bike	N/A	N/A	50	N/A
4 lane	N/A	60	60	N/A
4 lane w/CLT	N/A	N/A	58	N/A
4 lane w/bike	80	70	70	N/A
4 lane w/CLT and bike	N/A	N/A	N/A	N/A
6 lane	82	82	N/A	N/A
6 lane w/CLT	92	92	N/A	N/A

6 lane w/CLT and bike				
Design Speed (MPH)	50	50	40	35
Maximum Grade (%)[3] Flat Rolling Mountainous	6 7 9	6 7 9	6 8 10	7 9 10
Minimum Centerline Radius (ft.) Flat Rolling Mountainous	1,145 715 410	1,145 715 410	955 560 410	575 440 330
Design Volume (ADT) 2 lane 3 lane w/bike 4 lane 4 lane w/CLT 6 lane	N/A N/A N/A 24,000 40,000	N/A 16,000 N/A 24,000 40,000	12,000 16,000 18,000 24,000 N/A	12,000 16,000 N/A N/A N/A
Min. Full Access Intersection Spacing (ft.)	1,000	600	500	275
Sidewalk (both sides) Curb and Gutter required	12’ trail	6' 18" C&G	6' 18" C&G	6' 18" C&G
Minimum Intersection Curb Return Radii (ft.)[4]	35	35	35	35
Minimum R/W Radius Chords	25	25	25	25

[1] Medians fourteen (14) foot wide or greater are raised; twelve (12) foot medians may include turn lanes.

[2] Shoulders may be widened for short distances where guardrail is planned. Parking limited to urban collectors (two (2) lanes).

[3] May be steeper for short distances where permitted by AASHTO Guidelines.

[4] Forty-five (45) foot radius will be required on roads where truck/transit will use, and there is only one (1) lane of traffic.

Table 40.350.030-3. Design Criteria for Rural Collectors

Design Criteria	Major Collector Drawing 23	Minor Collector Drawing 24
Minimum Spacing	< 2 miles	< 2 miles
Minimum R/W (ft.) 2 lane	60	60
Lane Width (ft.) 2 lane	12	12
Median Width (ft.) 2 lane	N/A	N/A
Shoulder/Parking (ft.) 2 lane	8	8
Roadway Width (ft.) 2 lane	40	40
Design Speed (MPH) Flat Rolling	50 40	50 40

Mountainous	30	30
Maximum Grade (%) Flat Rolling Mountainous	6 8 10	6 8 10
Minimum Centerline Radius (ft.) Flat Rolling Mountainous	955 560 410	575 440 300
Design Volume (ADT) 2 lane	10,000+	5,000
Minimum Full Access Intersection Spacing (ft.)	500	275
Minimum Radii (ft.)	35	35
Minimum R/W Radius Chord	25	25

Table 40.350.030-4. Design Criteria For Urban Access Roads

Design Criteria	Neighborhood Circulator[7] Drawing 13	Local Residential Access[7] Drawing 14	Residential Loop[7] Drawing 15	Cul-de-Sac[1,7] Drawings 15 & 28	Short Cul-de-Sac[2,7] Drawings 16 & 29	Alley[3,7] Drawing 19	Infill A Roadway[4,7,11] Drawing 17	Infill B Private Roadway[7,11] Drawing 18
Minimum Right-of-Way (ft.)	54	46	46	46	42	26	25	20
Lane Width (ft.)	2 lanes 10 ft. ea.	1 lane 12 ft. ea.	1 lane 10 ft. ea.	1 lane 10 ft. ea.	1 lane 10 ft. ea.	1 lane 20 ft. ea.	2 lanes 10 ft. ea.	1 lane 12 ft. ea.
Parking Lane Width (ft.) one or both sides	8 both sides	8 both sides	8 both sides	8 both sides	7 both sides	N/A N/A	N/A N/A	N/A N/A
Roadway Width (ft.)[5]	36	28	26	26	24	20	20	12
Design Speed (MPH)	25	25	25	25	25	N/A	N/A	N/A
Maximum Grade (%)	15	15	18	18	18	18	18	18
Minimum Centerline Radius (ft.)	150	70[6]	70[6]	70[6]	70[6]	N/A	N/A	N/A
Maximum Number of Houses	300	150	100	N/A	18	N/A	8 Lots	4 Lots[12]
Sidewalks (both sides) (ft.)	5	5	5	5	5	N/A	N/A	N/A
Curb and Gutter[8]	18 in. C&G	18 in. C&G	18 in. C&G	18 in. C&G	18 in. C&G	N/A	N/A	N/A

Minimum Intersection Curb Return Radii (ft.)[9]	25	25	20	20	20	N/A	N/A	N/A
Min. Full Access Intersection spacing (ft)[10]	150	100	100	100	100	100	N/A	N/A
Public/Private	Public	Public	Public	Public	Public	Public	Public/Private	Private
Frontage Access	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A

[1] Cul-de-sac minimum R/W radius is fifty (50) feet with a constructed forty-five (45) foot radius – OR – minimum R/W radius is forty (40) feet with constructed thirty-five (35) foot radius and rolled curb and gutter with thickened sidewalk construction in accordance with a standard drawing provided by the responsible official.

[2] Short cul-de-sac minimum R/W is thirty-five (35) foot radius with a constructed thirty (30) foot radius.

[3] Twenty (20) foot unobstructed width.

[4] Public Works director may approve the use of public infill A for new subdivisions with design limitations or peculiar terrain or parcel configuration when constructed with Portland cement concrete.

[5] Neighborhood circulator includes two (2) eight-foot parking lanes.

[6] Except for where the curb is between eighty (80) to one hundred ten (110) degrees, a minimum thirty-five (35) foot radius may be used.

[7] All stubbed public roads greater than one hundred fifty (150) feet serving four (4) or more lots shall provide a forty-five (45) foot minimum radius temporary turnaround or other approved turnaround.

[8] Vertical curb and rolled curb also acceptable.

[9] Intersections with arterials require thirty-five (35) foot radii.

[10] Ten (10) foot maximum off-set may be allowed.

[11] Infill developments only: Infill Road A and Infill Private Road B standards may be used in lieu of alley standards pursuant to Section 40.260.110.

[12] One hundred fifty (150) foot maximum length.

Table 40.350.030-5. Design Criteria For Rural Access Roads

Design Criteria	Private Road[1] Drawing 27	Local Access Drawing 25	Loop Road Drawing 26	Cul-de-sac[2] Drawings 26 and 30
Minimum R/W (ft.)	30' Easement	50[3]	46	42
Lane Width (ft.)	two 10' lanes	two 10' lanes	two 10' lanes	two 10' lanes
Paved Shoulders		2 (2')	2 (2')	2 (2')
Roadway Width (include	20	24	24	24

shoulders) (ft)[4]				
Design Speed (MPH)	25[5]	30	25	25
Maximum Grade (%)	18	15	18	18
Minimum Centerline Radius (ft.)	60	150	60	60
Maximum Length (ft.)[6]	N/A	N/A	N/A	N/A
Intersection Minimum Spacing (ft.)[7]	100	150	100	100
Design Volume (ADT)	500	2,000	500	250
Typical # Houses	50	200	50	25
Sidewalks (both sides) Curb and Gutter Required	N/A	N/A	N/A	N/A
Minimum Intersection Radii [8]	25	25	20	20

[1] Private loop roads and cul-de-sacs may use public road standards for the respective categories except that the width of the road is twenty (20) feet.

[2] Cul-de-sac bulb minimum constructed radius is forty-five (45) feet with a fifty (50) foot right-of-way radius.

[3] Within the "urban reserve" areas of the county, the right-of-way shall be fifty-four (54) feet.

[4] Add ten (10) feet for bike lanes.

[5] Design speed for Rural Private road may be reduced to twenty (20) miles per hour without road modification, if topography imposes severe restriction and has approval from the County Engineer.

[6] The review authority may require a limitation to the length of a cul-de-sac or dead-end road in certain situations (see Section 40.350.030(B)(12)).

[7] A ten (10) foot maximum off-set may be allowed.

[8] Intersection of two (2) different street classifications shall use the larger intersection radius.

Table 40.350.030-6. Design Criteria For Urban Industrial Roads

Design Criteria	Primary Industrial Dwgs 20 and 21	Secondary Industrial Drawing 22	Local Industrial
Maximum Spacing		< 2 miles	
Minimum R/W (ft.) 2 lane 3 lane 5 lane	N/A 60 80	60 70 N/A	50 65 N/A
Lane Width (ft.) 2 lane 3 lane 5 lane	N/A 14 13-12-14-12-13	14-14-10 N/A N/A	16 16-12-16 N/A
Median Width (ft.) 5 lane	14	N/A	12
Shoulder/Parking (ft.)[1] 2 lane 3 lane	N/A N/A	0[1] N/A	(See Note 4) N/A

5 lane	N/A	N/A	N/A
Roadway Width (ft.) 2 lane 3 lane 5 lane	N/A 42 64	38 N/A N/A	32 44 N/A
Design Speed (MPH)	40	35	25
Minimum Grade (%) Flat Rolling Mountainous	0.4 0.4 0.4	0.4 0.4 0.4	0.4 0.4 0.4
Maximum Grade (%)[2] Flat Rolling Mountainous	7 9 10	7 9 10	9 9 9
Minimum Centerline Radius (ft.) Flat Rolling Mountainous	575 440 300	575 440 300	200 200 200
Design Volume (ADT) 2 lane 3 lane 5 lane	N/A 8,000 – 12,000 12,000 – 24,000	4,000 – 10,000 N/A N/A	< 4,000 N/A
Min. Full Access Intersection Spacing (ft.)	275	275	N/A
Design DTN Section	300 min.	200 min.	150
Min. Pavement Section		Soils Study	Specific Design
Sidewalk Curb and Gutter Required	6' 18" C&G	6' 18" C&G	6' 18" C&G
Minimum Intersection Curb Radii (ft.)[3]	50	45	45'
Minimum R/W radius chords	40	35	

[1] Shoulders shall be widened two (2) feet where guardrail is planned. Parking limited to one (1) side.

[2] May be steeper for short distances where permitted by AASHTO Guidelines. Higher grade for local industrial standard can be approved by the review authority.

[3] Must meet state standards if intersecting state roads.

[4] No parking.

4. Access Management.
   a. Applicability. As noted in Section 40.350.030(A)(2), this subsection also applies to applications for building permits and applications for access to public roads.
   b. Access to Local Access Roads.
      (1) Spacing.
         (a) Excepting the bulbs of cul-de-sacs, driveways providing access onto non-arterial streets serving single-family or duplex residential structures shall be located a minimum of five (5) feet from the property lines furthest from the intersection. Where two (2) driveways are permitted, a minimum

separation of fifty (50) feet shall be required between the driveways, measured from near edge to near edge.

(b) Corner lot driveways shall be a minimum of fifty (50) feet from the intersecting property lines or in the case where this is impractical, the driveway may be located five (5) feet from the property line away from the intersection or as a joint use driveway at this property line. Where a residential corner lot is located at the intersection of a non-arterial street with an arterial street, the corner clearance requirements of Section 40.350.030(B)(4)(c)(2)(f) shall apply to the non-arterial street.

(c) Flag lots and joint driveways serving two (2) or three (3) lots are exempt from the requirements of this subsection.

(d) Nonresidential driveways are prohibited from taking access from an urban access road as defined in Table 40.350.030-4 unless no access exists or can be provided to a collector.

(2) Number and Width. A maximum of two (2) driveways may be permitted to a residential lot or individual duplex unit meeting the spacing requirements of Section 40.350.030(B)(4)(b). Joint use driveways may be allowed and will count as a driveway for each residential lot or duplex unit. For a joint use driveway, a minimum of a twenty (20) foot wide easement is required. Driveways shall have a minimum width of twelve (12) feet of clear unobstructed all weather driving surface and an overhead clearance of thirteen (13) feet, six (6) inches. The first, or only, driveway shall be twelve (12) feet to thirty-five (35) feet in width. If a second driveway is allowed, the maximum width of the second driveway will be fifteen (15) feet.

(3) Length. All new driveways longer than three hundred (300) feet shall be provided with an approved turnaround at the terminus. There shall also be approved turnouts constructed such that the maximum distance from turnout to turnout, or from turnout to turnarounds does not exceed five hundred (500) feet. Turnouts shall comply with the Standard Details Manual. Construction of roads and driveways within the wild land urban interface/intermix area shall conform to Section 15.13.030.

(4) Maximum Dwelling Units Served by Access Roads.

(a) No road may serve more than one hundred (100) lots or dwelling units unless that road is connected by a second vehicle access to the same “feeder” road at a different location, or to another “feeder” road that functions at a level equal to at least an urban local residential access road or a rural local access road. The second access road may be a county emergency access road only, if it serves less than two hundred (200) lots. The second access may be satisfied through the use of an existing roadway network in the existing adjacent neighborhood if:

(i) An existing road was previously stubbed indicating intent for future access; or

(ii) An easement has been dedicated specifically for such purpose, and a roadway has been built to county standards or will be constructed with the development to county standards.

In either case, the increase in traffic volume on the existing roadway network must not cause the traffic volume to exceed the design volume of the existing roadway network.

(b) Urban neighborhood circulator roads within a development which meet the access requirements above may serve up to three hundred (300) lots

or units if approved by the review authority. However, the review authority may require a traffic circulation study showing a balanced traffic flow of less than two thousand (2,000) vehicles per day past any dwelling unit accessing on a neighborhood circulator road or lesser classification upon full buildout.

(c) When required emergency or regular secondary access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades or other similar conditions, the county fire marshal may require additional fire protection as specified in Title 15 of this code.

(d) The standards contained in Section 40.350.030(B)(4)(b)(4) are waived in their entirety for developments in rural areas.

(5) Exceptions.

(a) The review authority may grant an exception to the requirements of Section 40.350.030(B)(4)(b)(3) to extend the maximum distance between turnouts/turnarounds or allow other appropriate relief where it is impractical or excessively costly to meet these requirements due to topography, sensitive areas, natural features, or where application of these standards would be disproportional.

(b) The review authority may grant an exception to the requirements of Section 40.350.030(B)(4)(b)(4)(a) in the case of a subdivision with more than one (1) phase, when it can be shown that the other necessary access roads will be constructed in a future phase of the same subdivision. Street stubs built to the property line of property not under the developer's control does not qualify for such an exception.

c. Access to Collectors.

(1) In order to limit the number of residential roads intersecting with collectors while providing adequate neighborhood circulation, residential roads intersecting with collectors shall be classified and constructed to standards applicable to local residential access road unless the review authority finds that a lesser classification adequately provides for the circulation needs of the surrounding area. Road approach permits not associated with development shall be reviewed using a Type I process.

(2) Driveways.

(a) Urban Collectors. No residential driveways in the urban area will be permitted to access collectors unless no other access to the site exists or can be made available; provided, this provision will not be interpreted to indirectly limit the number of lots in an infill development and the review authority may authorize either direct access and/or an infill private road serving a greater number of lots than otherwise authorized by Table 40.350.030-4.

(b) Rural Collectors. Residential driveways in the rural area will not be permitted to access collectors if direct lot access is available to an existing rural access road as defined in Table 40.350.030-5.

(c) Spacing. When driveways on collectors are permitted, they shall be spaced in accordance with Table 40.350.030-7. The distance between adjacent one-way driveways with the inbound drive upstream from the outbound drive may be one-half the distance shown. Where raised channelization exists, only those driveways on the development side of the road will be considered for minimum separation requirements.

(d) Number of Driveways. The number of driveways and driveway lanes shall be based upon an estimate of site traffic generation in accordance with Table 40.350.030-8. Multiple driveways are not permitted until the estimated ADT exceeds the number shown in the second column for the different types of land use. Then, an additional driveway is allowed each time the estimated ADT increases above the previous maximum ADT for each driveway as shown in the third column; provided, the additional driveways meet the spacing requirements specified in Table 40.350.030-7. Two (2) driveway exit lanes are allowed when the ADT exceeds seven hundred (700).

(e) Width. A single-family residential driveway onto a collector shall be fifteen (15) to thirty-five (35) feet in width; provided, that a joint use driveway serving two (2) residential lots shall not exceed thirty-six (36) feet in width. A nonresidential two (2) way driveway onto a collector shall be twenty-four (24) to forty (40) feet in width.

(f) Corner Clearance. To provide adequate corner clearance, the tangent curb length between the nearest edge of a driveway on an intersecting side street and a collector roadway, or a driveway on a collector roadway and an intersection with a cross street shall be fifty (50) feet. Where the intersection is signalized or is planned for signalization, driveways shall be limited to right-turn movements if located within one hundred twenty-five (125) feet on a collector.

(g) Additional Improvements. The installation of other improvements such as left-turn lanes, right-turn lanes and traffic signals may be required by the County Engineer where found necessary on the basis of a traffic engineering study.

(h) Temporary Driveway. A temporary driveway may be allowed when, due to conditions beyond the control of the applicant, minimum driveway separation cannot be achieved at the time of application. The review authority may approve a temporary driveway when an access plan shows future removal of the temporary driveway and a new driveway which meets the spacing standards shown above.

d. Access to Arterials. In order to limit the number of residential roads intersecting with arterials while providing adequate neighborhood circulation, residential roads intersecting with arterials shall be classified and constructed to standards applicable to local residential access or collector road unless the review authority finds that a lesser classification adequately provides for the circulation needs of the surrounding area. In those cases in which an urban access street less than thirty-six (36) feet wide is approved, such street shall have a minimum width of thirty-six (36) feet at the intersection with the arterial and shall be tapered as shown on the standard plans. Road approach permits not associated with development shall be reviewed using a Type I process.

(1) Driveways. No driveways will be permitted to access onto arterials unless no other access to the site exists or can be provided.

(a) Spacing. When driveways on arterials are permitted, they shall be spaced in accordance with Table 40.350.030-7.

(b) Number of Driveways. Where permitted, the number of driveways and driveway lanes on arterials shall be based upon an estimate of site traffic generation in accordance with Table 40.350.030-9.

(i) Multiple driveways are not permitted until the estimated ADT exceeds the number shown in the second column for the different type of land use. Then, an additional driveway is allowed each time the estimated ADT increases above the previous maximum ADT for each driveway as shown in the columns for minor arterials and principal arterials; provided, the additional driveways meet the spacing requirements specified in Table 40.350.030-7. As an example, a commercial land use on a minor arterial has one (1) driveway up to two thousand (2,000) ADT, then two (2) driveways for two thousand one (2,001) to five thousand five hundred (5,500) ADT, three (3) driveways for five thousand five hundred one (5,501) to nine thousand (9,000) ADT and so on.

(ii) A permit for exclusive use of a truck driveway in addition to the non-truck traffic may be granted for commercial uses that exceed thirty thousand (30,000) square feet of gross floor space.

(iii) Two (2) driveway exit lanes are allowed when the ADT exceeds one thousand (1,000).

(c) Width. A single-family residential driveway onto an urban arterial shall be fifteen (15) to thirty-five (35) feet in width; provided, that a joint use driveway serving two (2) residential lots shall not exceed thirty-six (36) feet in width. A commercial and multifamily two (2) way driveway onto an arterial shall be twenty-four (24) to forty (40) feet in width.

(d) Corner Clearance. To provide adequate corner clearance, the tangent curb length between the nearest edge of a driveway on an intersecting side street and an arterial roadway, or a driveway on an arterial roadway and an intersection with a cross street shall be fifty (50) feet. Where the intersection is signalized or is planned for signalization, driveways shall be limited to right-turn movements if located within two hundred fifty (250) feet on minor and principal arterials.

(e) Additional Improvements. The installation of other improvements such as left-turn lanes, right-turn lanes and traffic signals may be required by the County Engineer where found necessary on the basis of a traffic engineering study.

(f) Temporary Driveway. A temporary driveway may be allowed when, due to temporary conditions beyond the control of the applicant, minimum driveway separation cannot be achieved at the time of application. The review authority may approve a temporary driveway when an access plan shows future removal of the temporary driveway and a new driveway which meets the spacing standards shown above is assured to be constructed.

(2) Medians and Channelization Policy. In order to preserve capacity and promote safety, arterials shall include raised medians to restrict cross traffic movements. In general, full-access intersections, signalized and non-signalized, on arterials will be permitted only with other county, state and city roads as are designated on the Arterial Atlas, as amended. Circulation from such intersections in most cases will satisfy the access needs of adjacent land. However, in the event an applicant requests a median opening along an arterial or left-turn channelization access (in cases where the arterial is not designed with a median) which does not conflict with proper intersection spacing, such request shall be accompanied by a traffic study performed under

the requirements of Section 40.350.020. The proposed median opening or left-turn channelization may be approved only if the study shows:

(a) The existing or projected level of service on the arterial or at the nearest arterial intersection is at or above the minimum level of service established in Section 40.350.020.

(i) No existing or planned intersection is located within six hundred (600) feet of the proposed opening; or

(ii) The average daily trips (ADT) projected for the driveway using the proposed opening exceeds six thousand (6,000).

(b) The level of service on the arterial will significantly improve as a result of the proposed opening.

(c) The proposed location of the opening will increase service to surrounding properties.

The study also shall address such items as capacity, signalization, channelization and storage needs of the proposed median opening or left-turn channelization and how it can service surrounding properties as well. Information used in the study shall include both current traffic counts to determine immediate need for the median opening or left-turn channelization and projected counts to determine the future need therefor. Traffic projections shall be taken from existing studies where available and designated by the County Engineer; provided, that in no event shall projections be for a period longer than twenty (20) years. The cost of a median opening or left-turn channelization, approved under the above criteria, shall be borne by the developer.

e. Access to State Routes. If the access serving a development is onto a state road or highway, required dedication and/or improvements thereto must meet the requirements of the Washington Department of Transportation. In no case may the requirements be less than the access requirement to a principal arterial in urban areas or a major collector in rural areas.

Table 40.350.030-7. Driveway Spacing on Arterials/Collectors

Arterial and Collector Posted Speed (MPH)	Minimum Separation (Feet)
20	85
25	105
30	125
35	150
40	185
45 and over	230

Table 40.350.030-8. ADT Carried by Each Driveway onto Collectors

	ADT for First Driveway	Maximum ADT for Each Additional Driveway
Access from:		
Commercial use	0 to 1,000	2,000
Office use	0 to 1,500	2,000
Multifamily use	0 to 1,000	2,000

Industrial use	0 to 1,500	2,000	
Table 40.350.030-9. ADT Carried by Each Driveway onto Arterials			
		Maximum ADT for Each Additional Driveway	
Access from:	ADT for First Driveway	Minor Arterial	Principal Arterial
Commercial use	0 to 2,000	3,500	5,000
Office campus	0 to 2,000	3,000	5,000
Multifamily use	0 to 1,500	3,000	5,000
Industrial use	0 to 1,500	3,000	4,000

5. Frontage Roads/Improvement.

a. General Requirement. Unless already fully developed to the transportation standards and subject to the limitations set forth in this section and in Sections 40.350.030(B)(15) and 40.550.010, a partial-width road shall be established and constructed to the applicable right-of-way or easement and improvement standards set out in Section 40.350.030 to that portion of a frontage public or private road which abuts a parcel being developed as a condition of development approval.

(1) The right-of-way or easement width shall be a minimum of one-half (1/2) of that specified in Table 40.350.030-2 through 40.350.030-6; provided, that such minimum width may be increased where necessary to accommodate the minimum roadway improvement provided below to allow a minimum three (3) feet of right-of-way beyond the back of the sidewalk for urban public roads unless the sidewalk is detached from the curb with sufficient room to provide for utilities and signing, or for needed construction clearance, slopes or other features.

In the case of a development containing an arterial or fronting on an arterial street, the developer shall only be required to construct improvements up to forty-four (44) feet in width, or twenty-two (22) feet on a partial-width frontage, together with curbs and sidewalks, unless a wider section is necessary to accommodate the development.

Sufficient right-of-way and easement for a partial-width road must be provided to accommodate all necessary appurtenances required for construction including, but not limited to, approved cut or fill slopes or retaining structures if needed. If sufficient right-of-way is not available, slope easements from neighboring properties are an acceptable alternative. Such easements shall be recorded with the final plat. The county may require the proposed road cross-sections showing neighboring topography be submitted in order to determine if the partial-width road can be constructed as required.

(2) The partial width roadway shall be a minimum of twenty (20) feet wide, except for an infill B private road.

(3) New partial width roads will be allowed in commercial, office or industrial developments only after a traffic study verifies the adequacy of the roadway for clearance and turning movements.

(4) Where physical obstructions or development constraints preclude or limit full completion of the frontage road on the abutting property, the partial width roads may be allowed.

(5) Parking shall be prohibited along partial width roads, with signs and pavement markings being the responsibility of the developer.

(6) Where frontage improvements are required, the county will perform pavement deflection testing to determine the adequacy of the existing pavement. Where remaining life of the pavement is less than five (5) years, the developer shall construct the roadway to current standards to the centerline or twenty-two (22) feet, whichever is less. If remaining life is greater than five (5) years, the road shall be cut back to a location where the structure is sound and the widening constructed. However, in no case shall the reconstruction be less than four (4) feet in width from the existing edge of pavement to the new edge of pavement or face of curb. The county may require reconstruction to the centerline or twenty-two (22) feet, whichever is less, if the review authority determines the geometrics or other existing features are inadequate.

(7) The intersection of driveways with paved rural public roads shall be paved from the edge of the public road to the right-of-way or to twenty (20) feet from the edge, whichever is greater.

b. Exceptions.

(1) The right-of-way and easement requirements of Section 40.350.030(B)(5)(a) shall not apply to the construction, remodeling or enlargement of any Group R-Division 3 (single-family or duplex), or Group U occupancy (as defined in the International Building Code), to the construction of any accessory residential structure, to any sign, or to the structural addition, alteration or repair to any existing structure within any twelve (12) month period which neither exceeds twenty-five percent (25%) of the value of the existing structure nor increases the total floor space of the structure by more than ten percent (10%).

(2) The roadway frontage improvement requirements of Section 40.350.030(B)(5)(a) shall not apply to rural developments outside rural centers or those urban developments which the County Engineer finds, based upon an engineering traffic study, will not result in an increase of total site trip generations during the p.m. peak hour of more than ten percent (10%); provided, that such otherwise exempt developments shall be required to make intersection and sight distance improvements in accordance with Sections 40.350.030(B)(7) and (B)(8) and such frontage road improvements as are necessary in order to provide minimally safe access to the development.

c. Deferral.

(1) In the event that required frontage road improvements are included as a portion of a county road project on the county's six (6) year transportation improvement program scheduled to be undertaken within three (3) years, the developer, in lieu of constructing or guaranteeing the construction pursuant to Section 40.350.030(C)(4)(i) of such frontage improvements may be permitted to contribute a proportionate share towards the cost of such county road project by an agreement consistent with the requirements of RCW 82.02.020.

(2) The development approval authority may defer frontage road improvements, in whole or in part, where the current development proposal is for lots in the R1-5, R1-6, R1-7.5, R1-10 or R1-20 zoning districts larger than one (1) acre and a covenant running with the land is recorded requiring such improvements to be undertaken when redivision is proposed at an urban density.

6. Off-Site Road Improvement.

a. General. Nothing in this section shall be construed to preclude denial of a proposed development where off-site road conditions are inadequate to provide a minimum level of service as specified in Section 40.350.020 or a significant traffic or safety hazard would be caused or materially aggravated by the proposed development;

provided, that the applicant may voluntarily agree to mitigate such direct impacts in accordance with the provisions of RCW 82.02.020.

b. Requirements for Off-Site Access Road Improvements. All roads providing access to parcels being developed, whether such roads are to be public or private, shall at a minimum:

(1) Within the urban area have an unobstructed and paved roadway width of twenty (20) feet, except in those cases where the pre-existing road is eighteen (18) feet wide with one (1) foot wide shoulders, additional widening to the twenty (20) foot standard is not necessary. Any pre-existing roadway narrower than eighteen (18) feet with one (1) foot shoulders shall be widened to the full twenty (20) foot standard.

(2) Within the rural area, off-site public access roads shall meet the same standards as Section 40.350.030(B)(6)(b)(1). Off-site private access roads are not required to be paved but shall have an all weather driving surface, unobstructed roadway width of twenty (20) feet; except in those cases where the pre-existing road is eighteen (18) feet wide, additional widening to twenty (20) feet is not necessary. Any pre-existing roadway narrower than eighteen (18) feet shall be widened to the full twenty (20) feet standard.

(3) Have an unobstructed vertical clearance of not less than thirteen (13) feet six (6) inches (13′ 6″).

(4) Notwithstanding the foregoing, roads providing access to legal lots created prior to July 9, 1996, being developed with a Group R-Division 3 structure or residential mobile home, may be constructed with a minimum twelve (12) feet wide unobstructed all weather driving surface.

(5) Off-site private roads providing access to lots being developed shall have a minimum easement partial width of twenty-five (25) feet, from such lot to a public road, except for alleys and infill A and B private roadways.

c. Requirements for Off-Site Intersection Improvement. The owners of a parcel being developed shall enter into a signal participation agreement to contribute a proportionate share towards the cost of a traffic signal when:

(1) An intersection impacted by the proposed development is designated by the county for installation of a traffic signal; and

(2) The parcel being developed is not located within a traffic impact fee (TIF) service area; and

(3) During the peak hour, the development generates a minimum of three (3) percent increase of traffic on the intersection approach leg impacted by the development, or five (5) trips on a minor leg (those legs of the intersection that have the smaller approach volume) or twenty (20) trips on a major leg (those legs of the intersection that have the larger approach volumes); and

(4) The peak hour level of service at the leg of the intersection impacted by the site-generated traffic is at or will fall below the minimum level of service standard for that intersection as defined in Section 40.350.020.

7. Intersection Design.

a. Intersection Geometry. Private and public roads shall be laid out so as to intersect at an angle as near to a right angle as practicable, but in no case less than seventy-five (75) degrees for roads intersecting collectors and arterials and no less than sixty (60) degrees for access roads, unless modified pursuant to Section 40.550.010. Opposing roads accessing an intersection shall either be aligned or will be separated by a minimum intersection spacing, as specified in Table 40.350.030-2 through Table 40.350.030-6. Depending on the width of the intersection opening,

an off-set greater than ten (10) feet for access roads or five (5) feet for collectors and arterials is not allowed.

b. Intersection Right-of-Way.

Intersections shall have a minimum corner radius of ten (10) feet along the right-of-way lines for access roads and a minimum corner radius of twenty-five (25) feet along the right-of-way lines for collectors and arterials, unless road improvements require a greater radius.

On collectors and arterials, the dedication of right-of-way on corners shall include the chord of the radius. The county will accept an easement for this chord instead of dedication of right-of-way. For arterials intersecting with other arterials, an additional six (6) feet right-of-way may be required on both sides of the roadway if a future turning lane is required, based on transportation impact study, within twenty (20) years from the time an application is submitted. The length of the additional right-of-way shall be determined based on the transportation impact study.

c. Paving of Intersecting Area.

Where connecting to a paved street, whether public or private, the connecting road or driveway (excluding driveways in rural area) shall be paved twenty-five (25) feet back from the nearest edge of the traveled lane, or shall be equal to the minimum intersection radii as specified in Table 40.350.030-2 through Table 40.350.030-6, whichever is greater.

Driveways in rural areas connecting with paved public roads shall be paved from the edge of the public road to the right-of-way or to twenty (20) feet from the edge, whichever is greater.

Rural paving shall be done in accordance with the equivalent base structural requirements of the gravel road section as noted in the Standard Details Manual.

8. Sight Distances. As noted in Section 40.350.030(A)(2), this subsection also applies to applications for building permits and applications for access to public roads. Unless modified pursuant to Section 40.550.010, public and private roads shall comply with the following sight distance requirements:

a. Stopping Sight Distance.

Public roads shall have minimum stopping sight distance, as measured from a height of 3.5 feet to a target on the roadway nominally six (6) inches in height, in accordance with Table 40.350.030-10.

"Posted speed," which is statutory (fifty (50) MPH as per RCW 46.61.415) or recommended through a speed zone study and adopted by resolution by the board, shall be the legal speed limit generally applicable to such roadway. The advisory speed shown on a yellow advisory speed plate is not a legal speed limit. The county, or the applicant, should conduct a speed study if the actual traffic speeds are significantly different than the posted speed limit.

Table 40.350.030-10. Stopping Sight Distance

Posted Speed (mph)	Minimum Stopping Distance (feet)
25	150
30	200
35	250
40	325
45	400
50	475

b. Controlled Intersection and Driveway Sight Distance Triangle.

Traffic entering an uncontrolled public road from stop sign controlled public roads, or from private roads or private driveways shall have minimum corner sight distances, as shown in the following table, except as allowed in Section 40.350.030(B)(8)(c). They are measured from an eye height of three and one-half (3.5) feet above the controlled road at least fifteen (15) feet from the edge of the vehicle travel lane of the uncontrolled public road to an object height of four and one quarter (4.25) feet on the uncontrolled public road in accordance with Table 40.350.030-11.

Table 40.350.030-11. Controlled Intersection, Public Road and Driveway Sight Distance

Posted Speed, Uncontrolled Road (mph)	Minimum Corner Sight Distance (feet)
20	200
25	250
30	300
35	350
40	400
45	450
50	500

c. Uncontrolled Intersection and Driveway Sight Distance Triangle in Residential Areas.

This section applies only to access roads in urban and rural areas. Uncontrolled intersections shall have an unobstructed sight distance triangle of one hundred (100) feet on both approaches. This requirement may be reduced to eighty (80) feet for intersections abutting corner lots in an urban residential subdivision. Driveways shall have an unobstructed sight distance of one hundred (100) feet in both directions, except corner lot. The sight distance is measured along the lines four (4) feet from the center line, in drivers' direction, for both approaches or directions. Landscaping or fencing within the sight distance triangle shall not interfere with this sight distance requirement.

d. Effect of Grades. The effect of grades on the above stopping and intersection sight distances shall be governed by the criteria stated in the American Association of State Highway and Transportation Officials' (AASHTO) reference "A Policy on Geometric Design of Rural Highways" (1990).

9. Street Extensions.

a. General Requirements. Where a public or private road has been constructed, created or stubbed in such a manner as to be able to be extended or widened in accordance with adopted road plans, prior approved development or this section, including but not limited to maximum length requirements for cul-de-sacs as established in Table 40.350.030-4, design criteria for urban access roads, then:

(1) Connection With Adjacent Areas. All residences, buildings or structures shall be constructed in such a position on the property that they will not interfere with the extension or widening of the roadway to adjacent areas and shall be so situated that such extension will make orderly and planned development for additional road installations to meet the reasonable minimum requirements of good and safe traffic circulation, consistent with applicable zoning setbacks.

(2) Right-of-Way for Street Extensions. Right-of-way or private easements necessary to such extension or widening and falling within parcels being developed shall be granted or created as a condition of development approval.

b. Urban Developments.

(1) Provisions for Future Extensions. Any street within the urban area for which an extension in the future is planned shall be extended to the edge of the property being developed through the plat, short plat or site plan approval process, unless otherwise approved by the review authority. The street stub shall be a full street section, including sidewalks.

(2) Use of Temporary Turnaround. If a road serving more than eighteen (18) dwelling units or more than one hundred fifty (150) feet in length temporarily terminates at a property boundary, a temporary turnaround cul-de-sac bulb consistent with this standard shall be constructed near the plat boundary. The bulb shall be paved and shall be ninety (90) feet in diameter, which may include the width of the roadway with sidewalks, where required, terminating at the point where the bulb radius begins. Removal of the temporary turnaround and extension of the sidewalk shall be the responsibility of the developer who extends the road (see the Standard Details Manual). The easement for a temporary turnaround may be extinguished without county approval after the temporary turnaround is determined to be no longer necessary by the county.

(3) Barricades. A barricade shall be placed at the end of all stub streets, whether or not a temporary turnaround is constructed. For placement of temporary and permanent barricades, see Section 40.350.030(C)(4)(f).

c. Rural Developments. For any road in the rural area for which an extension is planned, the right-of-way falling within parcels being developed shall be dedicated where the existing platting pattern, the development under review and the potential for development of adjacent lots demonstrates a need for the dedication.

10. Private Roads.

a. Purpose. The purpose of private road standards is to provide an option to retain rural character, reduce costs to serve large rural lots, and allow more control, security, and sense of identity when public roads are not needed for public circulation.

For private road maintenance agreement, private road inspection, and developer maintenance obligation for private roads, see Section 40.350.030(C)(4)(g).

b. Approval Criteria and Requirements.

(1) Approval Criteria – General. Private roads are not allowed in either the urban or rural area:

(a) When they conflict with the Arterial Atlas, as amended; or

(b) When they are needed for public circulation; or

(c) When they connect two (2) public roads (except for commercial or industrial uses in urban areas); or

(d) When they are to serve more than fifty (50) potential residential lots in rural areas or one hundred (100) lots in urban areas, created after April 12, 1994, except within a planned unit development; provided, that where expansion of a public road is not presently feasible, the limitations of this subsection shall not apply if the affected internal and frontage roads are improved to public standards (if otherwise required) and dedicated to the county, with the acceptance of such dedication(s) being deferred until extension of a public road allows connection.

(2) Additional Requirements for Urban Private Roads. Private roads within developments may be allowed, provided they meet the following additional criteria:

(a) Structural sections shall be the same as for public roads of equivalent classification;
(b) A pedestrian access plan shall be approved;
(c) Internal traffic calming measures or devices such as speed humps or traffic circles may be required; and
(d) Minimum curb to curb width shall be twenty (20) feet with parallel parking prohibited on streets that are less than twenty-four (24) feet wide; provided, in nonresidential areas, the minimum curb to curb width shall be twenty (20) feet with parallel parking prohibited on streets that are less than twenty-eight (28) feet wide.

c. Notice. The following statement is required on the face of any site plan, or binding site plan or within the Developer Covenants to Clark County for any subdivision or short plat containing a private road: “Clark County has no responsibility to improve or maintain the private roads contained within or private roads providing access to the property described in this development. Any private access street shall remain a private street unless it is upgraded to public street standards at the expense of the developer or abutting lot owners to include hard surface paving and is accepted by the county for public ownership and maintenance.”

11. Joint Driveways. A maximum of three (3) legal lots may use a joint driveway to access a public or private road.

12. Cul-de-Sacs and Turnarounds.

a. Cul-de-Sacs.

(1) Whenever a residential urban cul-de-sac street is more than one hundred fifty (150) feet long, a bulb or hammerhead shall be constructed as follows:
(a) Minimum right-of-way diameter across bulb section: one hundred (100) feet in a permanent cul-de-sac; ninety (90) feet in a temporary cul-de-sac, with any bulb area lying outside straight-street right-of-way provided as temporary easement pending forward extension of the street. Right-of-way may be reduced to eighty (80) feet provided utilities and necessary drainage are accommodated on permanent easements within the development and a thicker abutting sidewalk section is utilized (see the Standard Details Manual).
(b) Urban Cul-de-Sac or Eyebrow Island. Optional feature for any cul-de-sac when the bulb’s paved diameter is ninety (90) feet or less; mandatory when the bulb’s paved diameter exceeds ninety (90) feet. If provided, islands shall have full-depth vertical curbs. Minimum island diameter shall be twenty (20) feet and there shall be at least twenty-two (22) feet of paved traveled way in a shoulder type section; thirty (30) feet of paved traveled way in a curb type section around the circumference. Islands shall be grassed or landscaped. Islands shall be maintained by the adjoining lot owners. Islands are required on eyebrows with a radius greater than thirty (30) feet. The minimum island diameter shall be ten (10) feet.

(2) In the urban and urban holding areas of the county, a permanent cul-de-sac shall not be longer than six hundred (600) feet measured from curb line of intersecting street to the center of the bulb section. Proposed modifications to this rule will be considered by the review authority based on pertinent traffic planning factors such as topography, sensitive areas and existing development.

(3) In the rural area of the county, there is no limitation to the length of a dead-end road, loop road, or cul-de-sac; provided, however, that approved turnarounds on roads greater than one-half mile long are provided every one thousand three hundred twenty (1,320) feet or as close to that distance as practical considering topography, natural features and existing manmade structures. Approved turnarounds may include cul-de-sacs, which may include the width of the roadway, intersecting public or private roads, hammerheads, or driveways meeting the dimensional requirements of a hammerhead. Within the wildland urban interface/intermix, approved turnarounds shall be provided every one thousand (1,000) feet. Dimensional requirements for all transportation related features in this subsection are as drawn in the Standard Details Manual.

Notwithstanding the foregoing, the development approval authority may restrict the length of a dead-end road or cul-de-sac where it is clearly shown that either:

(a) There is a practical alternative design that results in significantly superior actual or potential road connectivity or emergency services accessibility; or

(b) The presence of unstable slopes, flood risk, or other road blockage hazard presents a significant potential for isolating a substantial area from emergency services.

(4) The review authority may require an off-street accessway or an emergency vehicle access to connect a cul-de-sac at its terminus with other streets, parks, schools, bus stops, or other pedestrian traffic generators, if the need exists for pedestrian and bike circulation.

b. Turnarounds.

(1) When four (4) or more lots are served on a private road greater than one hundred fifty (150) feet in length, an approved turnaround shall be provided at the end of the private road. Easements may be required to be expanded to accommodate turnaround requirements.

(2) Approved turnarounds may include cul-de-sacs with an approved diameter in accordance with the Standard Details Manual (which may include the width of the roadway), or hammerheads, intersecting public or private roads or any alternative design approved through the road modification process. Dimensional requirements for all transportation related features in this subsection are as drawn in the Standard Details Manual.

(3) For those areas identified as wildland urban interface/intermix, refer to Chapter 15.13 as amended.

13. Urban Neighborhood Traffic Management.

a. Purposes. Urban neighborhood traffic management is intended to manage traffic speeds within residential neighborhoods and to discourage external traffic cutting through residential neighborhoods.

b. Applicability. The provisions of this section shall apply only to access roads within a development in the R1-5, R1-6, R1-7.5, R1-10, R1-20, R-12, R-18, R-22, R-30, R-43, OR-15, OR-18, OR-22, OR-30, OR-43, CR-1, CR-2, or MX zoning districts which meet one (1) of the following conditions:

(1) Projected average daily trip of greater than six hundred (600) and less than two thousand (2,000) motor vehicles and a sight distance in excess of six hundred (600) feet; or

(2) Determined by the County Engineer, not his or her designee, that traffic calming measures and/or traffic calming devices are warranted.

The review authority may waive the requirements of this section for Type I and Type II applications where the conditions listed above will not occur.

c. Standards and Requirements. If the condition in Section 40.350.030(B)(13)(b) occurs, traffic calming measures and/or traffic calming devices shall be required:

(1) Traffic Calming Measures. Traffic calming measures, such as "T" intersection, street trees, curvilinear streets, or entry treatments, shall be incorporated into the overall development design to manage traffic speeds.

(2) Traffic Calming Devices. Traffic calming devices, such as speed bump/hump and the devices shown in the Standard Details Manual or as approved by the review authority, shall be installed.

14. Urban Transit Circulation Standards. New residential, commercial and industrial developments shall be reviewed with the participation of C-TRAN invited during the development review process under Subtitle 40.5 to ensure appropriate design and integration of transit facilities into the development.

15. Right-of-Way Standards. Dedication of arterial right-of-way shall occur within developments in accordance with the transportation element of the comprehensive plan.

a. Public Roads. The minimum right-of-way and roadway widths for all public urban and rural roads shall be as shown on the design criteria detailed in Section 40.350.030(B)(3). Right-of-way widths, roadway widths and structural sections shall be consistent with projected traffic volumes planned for twenty (20) years from the time of design. Additional right-of-way or easement may be required where necessary to accommodate slopes, sight distance or other features necessary for maintenance or to enhance safety.

b. Urban Planned Unit and Multifamily Developments. When constructed, public roads shall be constructed according to the design criteria of Section 40.350.030(B)(3); provided, parking may be deleted when it is shown that four (4) non-tandem off-street parking spaces per unit are provided and distinct signs and markings show that no parking is permitted; and sidewalks along internal circulation roadways may be deleted by the review authority when it is shown that public walkways adequate for pedestrian circulation and meeting or exceeding the requirements of Section 40.350.010 are provided.

c. Commercial, Office Campus and Industrial Areas. When constructed, public roads shall be constructed according to the design criteria of Section 40.350.030(B)(3); provided, required roads shall be at least thirty-two (32) feet wide and in the urban area shall have curbs and six (6) feet wide sidewalks on each side of the roadway unless alternative walkways are provided. The structure of the road shall be designed according to minor arterial standards.

(Amended: Ord. 2004-06-11; Ord. 2005-04-12)

C. Specifications for Design and Construction.

1. Transportation Standard Specifications.

a. Transportation Standards.

The standards for Clark County roads and bridges, and all other construction within publicly owned right-of-way, shall consist of:

(1) The current published edition of the Standard Specifications for Road, Bridge and Municipal Construction as published by the Washington Department of Transportation (WSDOT) and the American Public Works Association (APWA) referred as Standard Specifications;

(2) The current Standard Plans for Road and Bridge Construction as published by WSDOT and APWA (referred as Standard Plans); and

(3) Current standard plans and design criteria prepared by Clark County of typical roadway sections, drainage and water quality appurtenances, and other typical roadway construction details, which are hereby adopted (see the Standard Details Manual).

b. Supplemental Standards. To implement the above standards, the following publications and their subsequent revisions are adopted and shall apply:

(1) The WSDOT Design Manual;

(2) The WSDOT Construction Manual;

(3) The WSDOT Hydraulics Manual;

(4) A Policy on Geometric Design of Highways and Streets prepared by the American Association of State Highway and Transportation Officials (AASHTO);

(5) The Manual on Uniform Traffic Control Devices (MUTCD) prepared by the U.S. Department of Transportation, Federal Highway Administration;

(6) Chapter 40.380, Stormwater and Erosion Control;

(7) Chapter 51-304 WAC, State of Washington Adoption of the Americans with Disabilities Act into the International Building Code.

c. Conflict of Standards. In the event of conflict with any of the specifications, the County Engineer shall specify which of the supplemental specifications will apply.

2. Construction Plan Requirements for Transportation and Utility Improvements. The applicant shall submit to the responsible official plans and specifications for street and utility construction for the proposed development. The plans and specifications shall include a vicinity map, a plan and profile, special provisions, and reference to the standard specifications, including the typical sections.

a. The Plan. The plan shall include the road alignment at a scale of not less than one (1) inch to fifty (50) feet (where less detail is required, a scale of one (1) inch to one hundred (100) feet may be approved by the responsible official) showing centerline stationing on all intersecting streets, with bearings on centerlines; curve data on all horizontal curves; right-of-way; relevant topography; existing and proposed utility location; street names in the development and adjoining the development; typical roadway section showing placement of utilities; existing and proposed drainage and water quality appurtenances; sidewalk ramp locations; floodplain and wetland boundaries; signalization, channelization, striping and signing; sufficient topographic data adjacent to the site to identify cut and fill limits from the proposed improvements and such further data as may be required by the responsible official.

b. The Profile. The profile shall show the relevant original ground lines using the same stationing as in the plan, control elevations, grade line showing the proposed grades, vertical curves, all bench marks, the vertical datum, and such further information as may be reasonably required by the responsible official. For new streets, the relevant original ground lines will show the ground line at centerline at a minimum and also at the edges of the right-of-way if grade differences are significant (or alternatively, surveyed contour lines on the plan view). For existing street, the applicant shall also show the ground line at the edge of pavement or face of curb, whichever is applicable. The profile lines for roads extending to the perimeter of any development shall be extended a minimum of three hundred (300) feet beyond the perimeter to include any change in contours which would affect the profile of the extension of the proposed road. If vertical control is available within one-half mile of the project, the applicant shall use the National Geodetic Vertical

Datum of 1929 (1947 adjustment) as a vertical datum. If county horizontal control, based on the North American Datum of 1983 (1991 adjustment), is available within one-half (1/2) mile of the project the applicant shall make a tie to the grid bearing and coordinate of the datum.

c. Required Project Construction Notes. Any required construction notes shall be shown or referenced on the plans.

d. Format. The cover sheet of all plans shall include a statement identifying which standard specifications will apply to the project. Plan and profile may be shown on the same sheet with profiles shown on the bottom half of the sheet. Sheets shall measure twenty-two (22) to twenty-four (24) inches in height by thirty-four (34) to thirty-six (36) inches in length with a borderline of two and one-half (2.5) inches on the left side of the length of the sheet and one-half (0.5) inch on remaining sides. When more than two (2) plan sheets are used, an overall development layout shall be submitted showing the relationship of roads and utilities.

(1) A north arrow shall be shown on each plan view sheet of the plans and adjacent to any other drawing which is not oriented the same as other drawings on the sheet.

(2) Character size shall not be smaller than eight one-hundredths (0.08) inch high.

(3) All detail drawings shall be included in the drawings.

(4) A title block shall appear on each sheet of the plan set and shall be placed in the lower right-hand corner of the sheet, across the bottom edge of the sheet or across the right-hand edge of the sheet. The title block shall include the name of the project, the engineering firm, the sheet title and the owner if not shown on the first sheet.

3. Transportation Design Specifications. The design criteria set out Table 40.350.030-2 through Table 40.350.030-6 are adopted as a portion of the Clark County standard specifications. Such criteria are applicable to roads located within and adjacent to a development. These criteria are intended for normal conditions. The responsible official may require higher standards for unusual site conditions.

a. Typical Roadway Section. The typical roadway section shall be as shown on the county standard plans. The roadway section used shall be detailed on the construction plans submitted for each new roadway or improvement to an existing roadway. Any deviation from the “Standard Plans” for typical cross-section will require a modification pursuant to Section 40.550.010.

b. Required Details. The typical section shall show the width of right-of-way, width of roadway, type and compacted depth of surfacing and paving materials, and such other dimensions as may be necessary or required. The location and width of sidewalks, walkways, curbs or curb and gutter shall also be shown, where applicable.

c. Surfacing – Depth Determination. The depth of surfacing and paving materials shall be determined from the standard plans. The depth to be used shall be determined from the functional use classification of the road to be improved and the AASHTO soil classification as shown in the Soil Survey of Clark County, Washington, published by the U.S. Department of Agriculture, Soil Conservation Service. In the case where the applicant wishes to submit an alternative surfacing and paving depth design, the applicant shall provide a design to support the proposed depths. The County Engineer shall establish and maintain criteria and methodologies for performing alternative surfacing and pavement depth design, including verified soil

engineering characteristics and traffic loadings for approving such alternative designs.

d. Alternate Surface Treatment. Alternate surface treatments may only be used upon approval of the County Engineer. The applicant shall supply the County Engineer with specifications for materials and application rates as part of the approval.

e. Steeper Grades. Roads constructed in grades steeper than fifteen (15) percent shall be constructed with Portland cement concrete, with grooved surfacing. Rural roads are exempted from this requirement.

f. Grades and Drainage. Access road drainage facilities shall be designed to meet the requirements of the county stormwater drainage and erosion control ordinances, and be sufficient to prevent water damage or impairment from normal rain flow or surface water. Erosion control shall be provided during construction to maintain the roadways such that mud and debris are minimized consistent with such ordinances. Drainage details and street profile grades shall be shown on the construction plans. In the Urban and Urban Reserve areas, the centerline profile street grades shall not be less than one (1) percent unless an integral curb and gutter section is used in which case the minimum grade shall not be less than three-tenths percent. If any grading or filling to lots or other areas outside the streets is to be done which exceeds those amounts specified in Chapter 70, Uniform Building Code, an overall grading plan shall be submitted as a part of the plans. In rural area, driveway culverts must be a minimum of twelve (12) inches. Culverts larger than the minimum will be sized by identifying the size of culverts upstream.

g. Passing Sight Distance. Arterial roads shall have minimum passing sight distance, as measured from a height of three and one-half (3.5) feet to an object of four and one-quarter (4.25) feet in height, in accordance with Table 40.350.030-12. The effect of grades on the sight distances shall be governed by the criteria stated in the American Association of State Highway and Transportation Officials' (AASHTO) reference A Policy on Geometric Design of Rural Highways (1990).

Table 40.350.030-12. Passing Sight Distance

Design Speed (mph)	Minimum Passing Distance (feet)
30	1,100
35	1,300
40	1,500
45	1,650
50	1,800

h. Signing.

(1) General Requirement. The developer shall reimburse the county for the installation of all necessary street name signs, warning signs and regulatory signs. The cost of all signs, barricades, and pavement markings will be determined on a time and materials basis.

(2) Private Road Signs. Private road signs with street designations shall be provided by the developer at the intersection of private roads with private and public roads. Such signs shall meet the specifications shown on the typical drawing and, in the case of intersections with public roads, shall either be located within the public right-of-way or within a separate maintenance easement. Road signs shall be included in the private road maintenance agreement.

4. Transportation Construction Specification.

a. General. No construction shall begin until plans have been approved by the county, except that rough grading operations may proceed before the plans are approved under the following conditions:
   (1) The grading plan is submitted separately along with an application for a grading permit, if required;
   (2) The grading plan is in conformance with the approved preliminary plat or other development approval;
   (3) The grading plan will not be in conflict with the street and drainage plans; and
   (4) Any required grading permit is issued. No utility installation is allowed under grading permits.

   The responsible official shall be notified not less than forty-eight (48) hours prior to the start of any phase of construction.

b. Subgrade. The subgrade must be inspected and approved by the responsible official prior to application of the crushed surfacing material.

c. Crushed Surfacing Materials. The standard specifications shall apply to all materials and workmanship. Compaction of subgrade and surfacing materials shall be in accordance with the WSDOT Standard Specifications. The subgrade and crushed surfacing materials shall be compacted to ninety-five percent (95%) of the maximum density for the material. The base course shall be approved prior to application of top course, and top course shall be approved prior to placement of pavement. Approval shall be by the responsible official.

d. Paving. The standard specifications shall apply to all materials and workmanship. The department shall be notified not less than forty-eight (48) hours in advance of the application of any type of paving and, in accordance with the standard specifications, the responsible official may stop or delay paving operations when the weather or other conditions indicate that suitable results may not be obtained.

e. Trench Backfill.
   (1) Trench Backfill for Construction. All trench backfill within the county right-of-way and the road improvement area shall be imported gravel backfill meeting the material specification of the WSDOT Standard Specifications Section 9-03.19. Native soils may be utilized upon the responsible official's approval if testing shows the material is classified as A-1 or A-3 by AASHTO. Trench backfill shall be compacted within the roadway prism to ninety-five percent (95%) of maximum density as determined by AASHTO T-99. Areas within the right-of-way and outside the roadway prism may be compacted to ninety (90) percent of AASHTO T-99. The trench backfill shall be placed in conformance with the Standard Specification Section 7-08.3(3).
   (2) Trench Backfill for Utility. Application of this specification is required on principal and minor arterials, urban collectors, rural major and minor collectors, and any roadway that has been reconstructed or overlaid within two (2) years.

   Utility trenches in existing roadways and which run transverse to the direction of vehicle travel shall be constructed in accordance with the requirements of the utility cut permit, issued from Clark County's operations division. In addition to the requirements listed in Section 40.350.030(C)(4)(e)(1), tranverse utility cuts will be required to have the top three (3) feet of trench backfill constructed with controlled density fill meeting the requirements of the Standard Specification Section 2-09.3.(1)E. Refer to the Standard Details Manual for examples.

f. Temporary and Permanent Barricades. Temporary and permanent barricades shall conform to the standards described in Section 6C-8 of the Manual on Uniform Traffic Control Devices (MUTCD). For street extensions, including subtitle

connection with adjacent areas, right-of-way for street extension, provision for future extension, and use of temporary turnaround, see Section 40.350.030(B)(9).

(1) Type I or Type II barricades may be used when traffic is maintained through the area being constructed/reconstructed.

(2) Type III barricades may be used when roadways and/or proposed future roadways are closed to traffic. Type III barricades may extend completely across roadway (as a fence) or from curb to curb. Where provision must be made for access of equipment and authorized vehicles, the Type III barricades may be provided with movable sections that can be closed when work is not in progress, or with indirect openings that will discourage public entry. When job site access is provided through the Type I barricades, the developer/contractor shall assure proper closure at the end of each working day.

(3) In the general case, Type III permanent barricades shall be installed to close arterials or other through streets hazardous to traffic. They shall also be used to close off lanes where tapers are not sufficiently delineated.

(4) Type III barricades shall be used at the end of a local access street terminating abruptly without cul-de-sac bulb or on temporarily stubbed off streets. Each such barricade shall be used together with an end-of-road marker.

(5) Barricades on dead-end streets which may be extended in the future will have a sign placed upon them, as approved by the responsible official, which gives notice that the road will be extended in the future, and will give a telephone number for interested persons to call to receive more information.

g. Private Road Maintenance Agreement. The county will not maintain roadways, signs or drainage improvements on private roads. All private roads shall be maintained by the owners of the property served by them and kept in good repair at all times. A private maintenance covenant recorded with the County Auditor will be required for any private road serving more than three (3) lots. The covenant will set out the terms and conditions of responsibility for maintenance, maintenance methods, standards, distribution of expenses, remedies for noncompliance with the terms of the agreement, right of use easements, and other considerations. The covenant shall be submitted to the responsible official for approval prior to recording. The covenants, which may be in the form set forth in the Standard Details Manual, shall include the following terms:

(1) The covenant shall establish minimum annual assessments in an amount adequate to defray costs of ordinary maintenance and procedures for approval of additional needed assessments.

(2) The covenant shall include a periodic maintenance schedule.

(3) The covenants for maintenance shall be enforceable by any property owner served by the road.

(4) The means shall be established for assessing maintenance and repair costs equitably to property owners served by the private road.

(5) The covenants shall run with the land.

(6) “Maintenance” shall include, but not be limited to, road surfacing, shoulders, gates, signs, storm drainage facilities and vegetation control.

(7) Private Road Inspection. Private roads will be subject to the same inspection schedule as public roads.

(8) Developer Maintenance Obligation. The developer of a residential plat or short plat shall be responsible to ensure the maintenance of the private road for a period of two (2) years from the date of recording of the plat or short plat.

Thereafter, the developer's maintenance responsibility will depend upon the number of lots under the developer's continuing ownership, as stated in the recorded maintenance agreement.

h. Construction of Sidewalks.

(1) Construction Standards. Materials and construction of sidewalks and accessways shall conform to the standard plans for the type of adjacent road. Sidewalks shall be surfaced with Portland cement concrete. Accessways may be surfaced with Portland cement concrete or two (2) inches of asphaltic concrete pavement on four (4) inches of compacted crushed surfacing.

(2) Construction Timing. Unless earlier installation is required by the responsible official, required sidewalks and accessways shall be installed in conjunction with either the construction of an adjacent road or the construction of a building structure. That portion of any required sidewalks or accessways adjacent to any lot shall be constructed prior to issuance of a certificate of occupancy for a building constructed on such lot.

(3) Construction Bond. If the responsible official determines that construction is not feasible when a building is ready for occupancy, a construction bond or other security acceptable to the responsible official shall be posted guaranteeing the construction of required sidewalks and accessways. The amount of such construction bond, or other security, shall be set by the responsible official based upon the estimated cost of installation at the time when the sidewalk or accessway is to be constructed.

(4) Procedure. Except as modified herein, the reviews, approval, inspection and acceptance procedures established elsewhere in this section shall similarly apply to sidewalks and accessways.

Note: For sidewalks requirements, see Section 40.350.010(B). For sidewalks detailed specifications, see the Standard Details Manual.

i. Construction Guarantee. In lieu of the completion of any required public improvements prior to approval of a final plat, short plat or the issuance of building permits, the responsible official may accept a bond, in amount and with satisfactory surety and conditions, or other secure method as the responsible official may require, providing for and securing to Clark County the actual construction and installation of such improvements within a period specified by the responsible official and specified in the bond or other agreement, and to be enforced by the Community Development director by appropriate legal and equitable remedies. The amount of bond or escrow shall be one hundred percent (100%) of the estimated cost as determined by the responsible official for the county to construct the improvement.

j. Issuance of Building Permits. Building permits and certificates of occupancy may be issued once the public improvements are substantially completed. In order for a model home/temporary sales office to be constructed, a building permit for one (1) dwelling unit may be issued prior to substantial completion of the public improvements.

Building permits, other than for Group R-Division 3, may be issued prior to substantial completion if the responsible official finds that the issuance and subsequent building construction does not interfere with emergency accessibility or the completion of public improvements. In this case, certificates of occupancy will not be issued until the public improvements are substantially completed.

k. Record Drawing. The applicant shall submit a reproducible set of plans for all public improvements showing all construction changes, such as location of culverts,

alignment and grade changes, added and deleted items, location of utilities, water valves, sewer connections, etc. The record drawings shall be prepared and stamped by a licensed engineer or surveyor, and submitted prior to acceptance of any improvements for provisional maintenance by the county.

l. Acceptance by County. Roads, drainage, landscaping, irrigation, and any other required right-of-way construction may be accepted for provisional maintenance by the county upon receipt of a workmanship and materials bond (or other secure method) in the amount of ten percent (10%) of the construction cost and the recommendation of the responsible official. Final acceptance will not be made for two (2) years from the date of provisional acceptance and the developer must repair any failure within the two (2) year period. The applicant may request inspection of the constructed facilities for release of the said workmanship and materials bond (or other secure method) at the end of the two (2) year provisional maintenance period.

m. Construction Revisions and Modifications to Construction Specifications. Revisions made during construction drawing review or during actual construction which do not conflict with conditions of development approval or the road standards may be authorized by the responsible official. Written consent between the responsible official and the developer is required. The developer will be responsible for informing the construction contractor of all approved changes. In unique circumstances the responsible official will consider requests for variation from the above listed construction specifications. It shall be the developer's responsibility to furnish supporting documentation as required by the responsible official to substantiate the requested variation